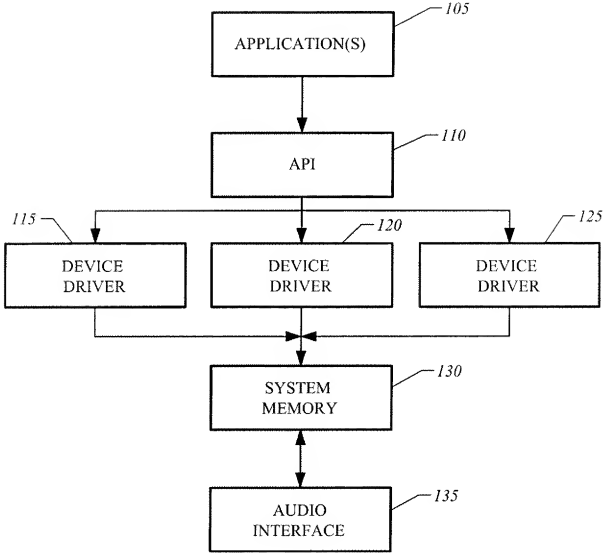

APPLICATION(S)
105
API
110
115
120
125
DEVICE DRIVER
DEVICE DRIVER
DEVICE DRIVER
SYSTEM MEMORY
130
AUDIO INTERFACE
135

FIG. 1

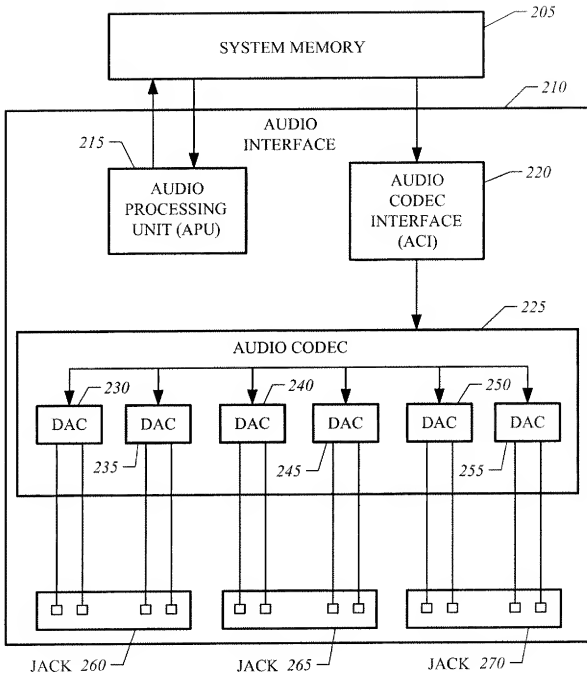

205
SYSTEM MEMORY
210
AUDIO INTERFACE
215
AUDIO PROCESSING UNIT (APU)
220
AUDIO CODEC INTERFACE (ACI)
225
AUDIO CODEC
230
240
250
DAC
DAC
DAC
DAC
DAC
DAC
235
245
255
JACK 260
JACK 265
JACK 270

FIG. 2

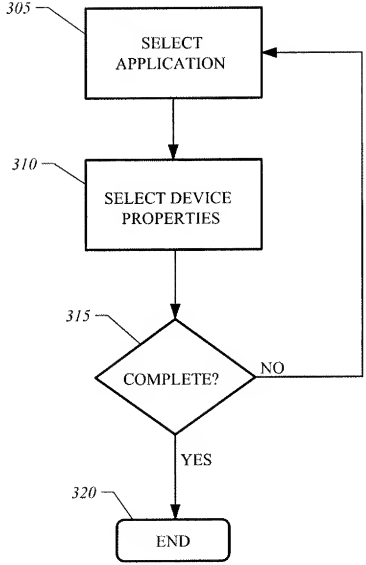
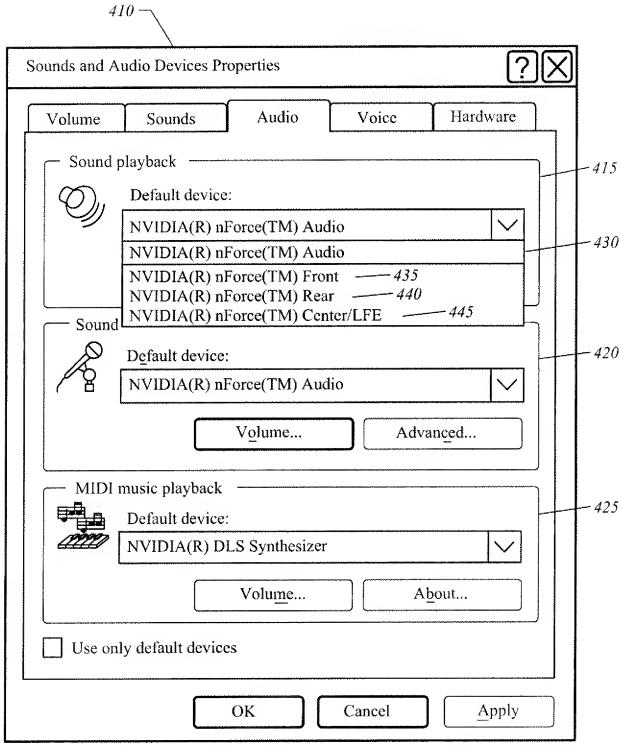

305
SELECT APPLICATION
310
SELECT DEVICE PROPERTIES
315
COMPLETE?
NO
YES
320
END

FIG. 3


410
Sounds and Audio Devices Properties
Volume
Sounds
Audio
Voice
Hardware
Sound playback
Default device:
NVIDIA(R) nForce(TM) Audio
NVIDIA(R) nForce(TM) Audio
NVIDIA(R) nForce(TM) Front
NVIDIA(R) nForce(TM) Rear
NVIDIA(R) nForce(TM) Center/LFE
435
440
445
415
430
Sound
Default device:
NVIDIA(R) nForce(TM) Audio
Volume...
Advanced...
420
MIDI music playback
Default device:
NVIDIA(R) DLS Synthesizer
Volume...
About...
425
Use only default devices
OK
Cancel
Apply

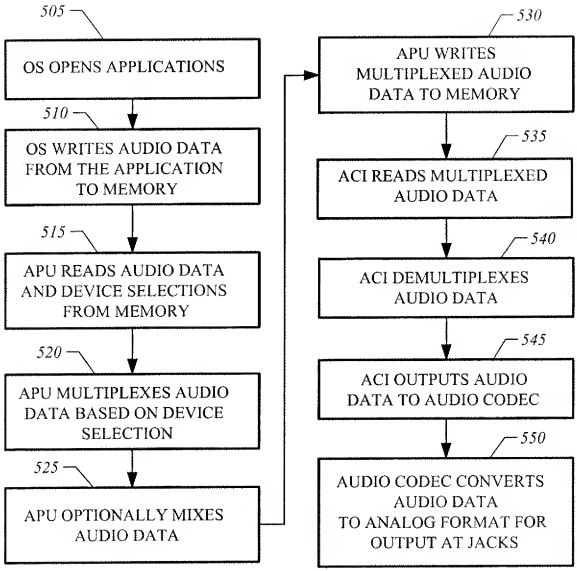

505
OS OPENS APPLICATIONS
510
OS WRITES AUDIO DATA FROM THE APPLICATION TO MEMORY
515
APU READS AUDIO DATA AND DEVICE SELECTIONS FROM MEMORY
520
APU MULTIPLEXES AUDIO DATA BASED ON DEVICE SELECTION
525
APU OPTIONALLY MIXES AUDIO DATA
530
APU WRITES MULTIPLEXED AUDIO DATA TO MEMORY
535
ACI READS MULTIPLEXED AUDIO DATA
540
ACI DEMULTIPLEXES AUDIO DATA
545
ACI OUTPUTS AUDIO DATA TO AUDIO CODEC
550
AUDIO CODEC CONVERTS AUDIO DATA TO ANALOG FORMAT FOR OUTPUT AT JACKS

FIG. 5

APP	DATA	CHANNEL
1	AB/CD/...	01
2	EF/GH/...	45
3	IJ/KL/...	23

FIG. 6A

APU 215 OUTPUT	A B I J E F / C D K L G H
DEVICE SEQUENCE	0 1 2 3 4 5 / 0 1 2 3 4 5

FIG. 6B

DATA INPUT 1	DATA INPUT 2	OUTPUT
AB/CD/...	EF/GH/...	ZY/VW/...

FIG. 7